

TABLE OF CONTENTS - Appendix O

List of Figures	O–iii
List of Tables	O–iv

Appendix O

Interim Report on Telephone Interviews O–1

O.1 Scope and Objective	O–1
O.2 Methodology	O–1
O.2.1 Sampling Frame.....	O–2
O.2.2 Tracking and Screening the Sample	O–2
O.2.3 Design Parameters	O–2
O.2.4 Expected Dispositions	O–3
O.2.5 Reserve Sample	O–3
O.2.6 Disproportionate Allocation	O–3
O.2.7 Final Sample Disposition Analysis.....	O–3
O.3 Telephone Interview Schedule.....	O–5
O.3.1 Preparedness and Training	O–6
O.3.2 Initial Experience on September 11, 2001.....	O–6
O.3.3 Interim Experience on September 11, 2001	O–7
O.3.4 Evacuation Experience on September 11, 2001	O–7
O.3.5 Respondent Background.....	O–8
O.4 Preliminary Results.....	O–8
O.4.1 Response Rate Analysis	O–8
O.4.2 Initial Building Populations.....	O–9
O.4.3 Occupant Characteristics	O–11
O.4.4 Previous Experience	O–13
O.4.5 Preparedness and Training	O–13
O.5 Summary	O–14

Attachment 1

CATI Advance Letter to Occupants..... O–19

Attachment 2

Oral Consent Statement..... O–21

Attachment 3

Telephone Interview Instrument.....	O-23
--	-------------

LIST OF FIGURES



Figure O-1. Employment start date at WTC..... O-12

LIST OF TABLES

Table O-1. Disposition of the CATI sample and the total sample by tower.	O-4
Table O-2. Summary disposition rates by tower.	O-5
Table O-3. Response rate analysis for WTC 1.	O-9
Table O-4. Response rate analysis for WTC 2.	O-9
Table O-5. Reports of WTC decedents.	O-10
Table O-6. Occupancy estimates on September 11, 2001, by tower.	O-11
Table O-7. Age for WTC 1 respondents.	O-11
Table O-8. Age for WTC 2 respondents.	O-12
Table O-9. WTC fire drills in 12 months prior to September, 11, 2001.	O-13

Appendix O

INTERIM REPORT ON TELEPHONE INTERVIEWS

O.1 SCOPE AND OBJECTIVE

Interviews with survivors of the World Trade Center (WTC) attacks were conducted using three methods: telephone interviews, face-to-face interviews, and focus groups. This appendix will review four aspects of the telephone interviews: methodology, sample disposition, telephone questionnaire, and preliminary results of the telephone interviews for the pre-September 11, 2001, data. Significant additional analysis will be completed over the next several months to develop as clear an understanding as possible of the evacuation of WTC 1 and WTC 2 on September 11, 2001. These findings will be enhanced and compared with findings from many other sources, including face-to-face interviews, focus groups, published accounts (see Appendix N of this report for a discussion of published accounts analysis), 9-1-1 records, and other materials.

The multimethod approach was selected for several reasons. First, multiple methods increase confidence in the conclusions and findings when more than one method arrives at the same conclusions. Second, the multiple objectives of the investigation mandated complementary approaches to accomplish all the goals. In other words, it is difficult to establish a scientific foundation for general findings while also broadly investigating and establishing new facts and discovering unique events using only one method. Finally, concerns associated with the time latency since September 11, 2001, suggest the use of different approaches and techniques in order to increase memory recall and accuracy.

The telephone interview questions and protocols met all Federal requirements regarding the Common Rule for the Protection of Human Subjects, including Institutional Review Board (IRB) and National Institute of Standards and Technology (NIST) approvals. Further, the telephone interview questions met the requirements of the Paperwork Reduction Act, subject to Office of Management and Budget (OMB) approval number 0693-0044.

O.2 METHODOLOGY

The survey objectives of the telephone interviews called for collecting 800 computer assisted telephone interviews (CATI) of persons occupying either of the two WTC towers (WTC 1 and WTC 2) at the time of the terrorist attacks on September 11, 2001. The sample size of 800 and allocation of n=400 to each tower were determined to simultaneously maximize the statistical precision within each tower. Primary statistical analyses are in the form of tabulations and linear statistics (e.g., reporting of percentages and average/means). Estimates of percentages from tower-specific survey data (at n=400) exhibit sampling errors no greater than 2.5 percentage points, and 95 percent confidence intervals of percentages are no

greater than +/- 5 percentage points. This level of precision is more than adequate for examining characteristics of occupants and egress attributes.¹

Attempts were made to equally divide the respondents among WTC 1 and WTC 2 occupants (i.e., n=400 occupant interviews from each tower). Within each of the WTC buildings, independent proportionate stratified samples of survivors were drawn. In other words, each occupant of a particular tower had an equal probability of being selected.

O.2.1 Sampling Frame

The sampling frame (i.e., the list from which the sample was drawn) consisted of the names of occupants from badge lists of WTC 1 and WTC 2. All occupants of the WTC were required to provide personal data in support of issuing badges to clear through the security station at the entrance of each tower. The badge lists were provided to NIST by the Port Authority of New York and New Jersey. The lists provide name, floor of occupancy, employer, and social security number, the only available means of uniquely identifying individuals.

O.2.2 Tracking and Screening the Sample

The badge lists contained September 11, 2001, occupants, occupants who were absent on the day of the attacks, decedents, former occupants, and nonperson listings (false names used in sample testing). This means that a screening effort was needed to identify “eligible” badge list members—namely, those who were inside WTC 1 or WTC 2 during the attacks. Moreover, the absence of telephone numbers for the badge holders on the list necessitated a tracking/locating effort. The primary tracking mechanism was to search public databases using commercially available batch matching and Web-based search utilities. This necessitated a large sample to generate the 800 completed interviews.

O.2.3 Design Parameters

The number of occupant selections drawn into the sample was contingent on four key design parameters:

- The percentage of individuals from badge listings for whom a working telephone number could be found (initial estimate: 80 percent tracking success)
- The percentage of badge listings that corresponded to a surviving WTC 1 or WTC 2 occupant on September 11, 2001 (initial estimate: 14 percent)
- The cooperation rate for screening the occupants (initial estimate: 65 percent)

¹ Multivariate modeling such as correlation analyses, multiple linear regressions, and path analyses, are also a prominent part of the survey analyses. Like the tabulations, these analyses are being conducted independently by tower. A sample size of n=400 per tower provides more than ample statistical power for the F tests used to determine the significance of the regression models (i.e., testing the null hypothesis that the ratio of explained variance to error/residual variance is equal to zero). For instance, in a multiple regression analysis featuring 20 independent variables, the sample size of 400, and 0.05 level of significance (Type I error), the power of the F test to detect an r^2 statistic (i.e., proportion of explained variance) of 0.06 is just over 81 percent. See also Chapter 9 of Cohen, J., 1988, *Statistical Power Analysis for the Behavioral Science*, Lawrence Erlbaum Associates, Inc., Hillsdale, N.J. Multivariate modeling results will be presented at a later date.

- The interview response rate among September 11, 2001 survivors (initial estimate: 50 percent)

O.2.4 Expected Dispositions

In planning the CATI survey, a number of design parameters needed to be quantified in order to determine the number of persons to draw from the badge list. The expected disposition of the sample was developed using the parameters defined in the aforementioned paragraph. A total sample of 22,735 persons from the badge list was needed to generate the desired 800 completed interviews. The expected disposition by tracking efforts, screening, and interviewing are discussed later.

O.2.5 Reserve Sample

A reserve sample of about 14 percent (or about $n=3,265$) was added in the event additional sample size was needed due to unanticipated circumstances (e.g., the eligibility rate is lower than anticipated). This brought the total sample size to 26,000. The reserve was held “in reserve” while the main sample was worked. Working the main sample allowed preliminary estimates of all design parameters to be monitored so that an informed decision could be made on the necessity of releasing none, some, or all of the reserve.

O.2.6 Disproportionate Allocation

The badge list contained different counts of persons from each tower, yet our sample design called for equal samples to be drawn from the collections of badge holders in WTC 1 and WTC 2. Thus, a disproportionate design (across tower strata) was employed. But within a tower, independent proportionate samples were drawn using stratification by floor (within tower), employer (within floor) and last name (within employer). This served to increase the statistical precision of the tower-specific samples.

Thus, equal-sized samples of 13,000 selections were drawn from each of WTC 1 and WTC 2 badge lists. Each tower-specific sample was partitioned into 20 random replicates (comprising 5 percent of the total), and the reserve sample was determined by the last several random replicates for each tower. It is important to note that all badge holders from WTC 1 floors 92 and above were omitted from sampling because there were no survivors from those floors.

O.2.7 Final Sample Disposition Analysis

A total sample of 26,000 was drawn, comprising 13,000 names for each tower. Table O–1 summarizes the final disposition of the CATI sample and the total (locating) sample. The table is comprised of two sets of rows. The top set pertains to the CATI sample and represents those sample persons for whom an initial telephone number was identified prior to commencing the CATI survey operations. The bottom set of rows with the heading “Total Sample Disposition” represents the results of our locating/tracking effort used to identify usable telephone numbers associated with the sample subjects. (Recall that only name, SSN and employer were available; no other contact information was readily available).

Table O–1. Disposition of the CATI sample and the total sample by tower.

CATI Disposition	WTC 1^a	WTC 2^a	Total	% Distn
Interview	427	376	803	4.0 %
Partial interview	47	37	84	0.4 %
9/11 decedent	20	40	60	0.3 %
Other decedent	49	39	88	0.4 %
Not eligible	3,712	3,752	7,464	37.5 %
Language barrier	135	129	264	1.3 %
Eligible refused to interview	138	139	277	1.4 %
Other refusal	224	181	405	2.0 %
Respondent not interviewed	247	168	415	2.1 %
Can't contact/locate respondent	4,987	5,076	10,063	50.5 %
CATI total	9,986	9,937	19,923	100.0 %
Total sample disposition:	WTC 1	WTC 2	Total	% Distn
Found initial telephone number	9,986	9,937	19,923	76.6 %
Unable to find a telephone number	3,014	3,063	6,077	23.4 %
Sample total	13,000	13,000	26,000	100.0 %

a. Table data are unweighted. Tower location as indicated in the badge list and may differ from reported tower location.

The bottom set of rows shows that telephone numbers were identified for just over three quarters (76.6 percent) of the sampled subjects. Moreover, this rate was fairly uniform across towers. The 19,923 individuals with an initial telephone number were then loaded into the CATI sample management system for calling. Ultimately, all reserve samples were used in the telephone survey. In the initial design parameters, it was assumed that 82 percent of the subjects would be locatable. While 76.7 percent is close, many of the numbers were obsolete (e.g., disconnect, wrong number) and necessitated additional tracking during CATI operations. Ultimately, by the end of data collection, only half the sample (49.5 percent) represented confirmed contacts with subjects.

The top set of rows in Table O–1 presents the final disposition of the sample by tower as well as for the overall sample. Several statistics in the percentage distribution (rightmost) column are notable. First, we were unable to contact subjects for half the sample (50.5 percent), due either to failures to answer the phone, answering machines, unusable numbers (e.g., wrong number, disconnected, business), etc. Most of these telephone numbers represent “unlocatable” subjects—subjects for whom the initial telephone number was incorrect. It bears reiterating that substantial additional research during CATI operations was conducted using powerful subscription-based Web-based search engines. Unfortunately, little information was available for these individuals.

A second result of interest is the prevalence of ineligible subjects—those not in the building on the morning of September 11, 2001. An assessment of eligibility rates appears later in this appendix. A third result is the existence of decedents—some from the September 11 attack and others from causes not necessarily related to September 11, 2001 (e.g., cause unknown, natural causes). Most of the September 11, 2001, decedents were encountered due to a difference in the full (formal) name of the subject and the name that appeared on the badge list (e.g., the badge list sometimes contained maiden names, middle

names, nicknames, misspelled first or last names, out-of-sequence names, titles, and so on). This impeded the ability to remove known decedents prior to calling.

The outcome of CATI operations on the final outcome rates is presented by tower in Table O–2. The table shows screening rates, interview rates, and rates of eligible occupants (among those who responded to the screening questions). The first row shows that screening response rates were relatively uniform across towers at about 46 percent. A screening response rate of 65 percent had been planned. Similarly, interview response rates (among screened eligible subjects) were relatively stable across towers at about 49 percent. This is consistent with the planned interview response rate of 50 percent.

Table O–2. Summary disposition rates by tower.

Disposition Rate	WTC 1	WTC 2	Total
Screen	46.5 %	45.8 %	46.1 %
Interview	48.6 %	49.5 %	49.0 %
Eligibility	18.9 %	16.7 %	17.8 %
Overall	22.6 %	22.7 %	22.6 %

Note: Definitions for “Rates” consistent with American Association of Public Opinion Research (AAPOR) Standards, which may be found at <http://www.aapor.org/pdfs/standarddefs2004.pdf>.

The eligibility rates were higher than expected – about 18 percent overall compared to the 14 percent expected. The eligibility rate among WTC 1 subjects was slightly higher than those of WTC 2. However, the overall response rates are essentially uniform across towers, at 22.6 percent.

O.3 TELEPHONE INTERVIEW SCHEDULE

The telephone interview was conducted by a trained interviewer using a computer program which provides questions and answer categories for the interviewer. Prior to calling, subjects received a letter that outlined the scope and purpose of the investigation, the purpose of the interview, and the telephone call that came several days later. A full informed consent statement appeared in the letter, as well. A copy of the letter can be found in Attachment 1 of this appendix.

When interviewers reached the subjects by telephone, the respondents were provided a description of the survey, the confidentiality of responses, the length of the interview, and the voluntary nature of participation. They were then asked if they wished to participate, thereby obtaining oral informed consent. The full text of the informed consent statement appears after the advance letter as Attachment 2.

The telephone interview instrument, Attachment 3 at the end of this appendix, includes the questions, variable names, response options, and skip patterns directly from the computer program used by the interviewers. Variable names are used as shorthand for subsequent data analysis. Questions had a variety of response option categories: multiple choice, interval, Likert scale, or open-ended. Open-ended responses were minimized where possible due to the analysis burden and the fact that face-to-face interviews are also being conducted. Skip patterns reduce burden on the respondent by skipping questions that would not apply to a particular respondent. For example, a respondent would not be further questioned about fire drills if they did not receive fire drill training. Subsequent discussion of the questions indicates whether a respondent was read a list of choices or was expected to give a free response.

The interview was designed with five primary groups of questions, covering emergency training and preparedness, three stages of evacuation experience, and background information about the respondent.

O.3.1 Preparedness and Training

The first group of questions served to measure the extent to which an occupant had any special level of knowledge about the building, other than what would be obtained by performing their job. The most prevalent special knowledge would be formal evacuation training, or fire drills. If a respondent indicated that they participated in evacuation training during the 12 months prior to September 11, 2001, further questions were asked about the content of the training. The occupant's understanding of the emergency procedures, or the way it was 'supposed to go,' was also measured. Next, a Likert Scale² measured the usefulness of the evacuation training in the context of their egress experience on September 11, ranging from very helpful to very unhelpful. Finally, the respondent was asked whether he or she knew that there was a floor warden for their floor.

O.3.2 Initial Experience on September 11, 2001

The second group of questions covered the first moments of September 11, 2001, as experienced by the respondent, also known as the initial awareness period. How a person first became aware that something was not normal, whether in their building or the neighboring building, may have influenced subsequent decisions. Examples of awareness channels may include sensory perception, such as feeling, hearing, or seeing the building shake, seeing or smelling fire or smoke, or may include a conversation with a person inside or outside the WTC complex. Next, the respondent was asked to provide context to the initial moment of awareness. Context was first created by identifying what activity the respondent was performing. Activities may include, but are not limited to, working, conversing with coworker(s), eating, or participating in a meeting. The respondent was then asked to recall the number of other people they were with at the first moment of awareness. People in groups often defer to group decisions rather than making their own evacuation decisions. Next, a list of observations was read aloud and the respondent is asked to indicate whether they noticed the event during the period of initial awareness. These events included smoke, fire, fireballs, collapsed walls, jet fuel, severely or fatally injured people, sprinklers going on, fire alarm sounding, power outage or flickering lights, fallen ceiling tiles, and extreme heat. The event proximity was probed for every affirmative response to determine whether the observed event was in the immediate area or outside the building. If no affirmative responses were indicated, the respondent was asked whether they observed any disaster related events not previously mentioned. Finally, the extent of any injuries to the respondent or those in the immediate area was ascertained, as well as whether the respondent felt that their life or the lives of other people were in danger.

² A Likert Scale measures the degree to which the respondent agrees or disagrees with a statement. In this case, the scale measured helpfulness, including very helpful, helpful, unhelpful, and very unhelpful. A neutral response was not included.

O.3.3 Interim Experience on September 11, 2001

The format of the interim experience group of questions mirrored the format of the initial awareness questions. The interim time period was defined as the time after initial awareness, but before the person entered a stairwell or elevator to leave the building. This time period may range from moments to tens of minutes. The objective of the interim period questions was to determine what motivated/forced people to either immediately evacuate or delay their evacuation by some period of time.

Information about the nature of the event often forms the basis for decision-making during the interim period. Many people may have found the environmental cues from the initial awareness period sufficient to initiate an immediate evacuation. Others may have required additional information in order to feel comfortable leaving the workplace. Occupants could have obtained information in two ways: passively and actively. Passive information is information received without seeking it out. In other words, the information was received regardless of whether the person felt it was needed. Active information is information which the respondent actively seeks and considers important with respect to their decision to evacuate. The respondent was first asked whether they received any additional information about the event during the interim period. If so, the source (who), the nature (what), and the channel (how) of the information was probed. Next, additional information sought out by the respondent was probed, including the source, nature, channel, and whether the process was successful in gathering additional information.

The perception of risk to the respondent's life, as well as the lives of others was asked in the same way as during the initial period, in order to determine whether the sense of risk was increasing or decreasing over time. The interviewer probed about the activities of other people in the proximity of the respondent, which may influence the respondent's subsequent choices. Whether people began evacuating prior to the respondent was specifically asked. Next, the respondent was asked about the activities they undertook during the interim period, as well as activities that they wanted to do but could not. These activities included work-related actions, such as saving files or shutting machines down; personal actions, such as gathering belongings or calling people; or emergency-related actions, such as fighting fires/smoke, and searching for or helping others. If a respondent was unable to accomplish an action, the action and the reason for being prevented from accomplishing the action was gathered.

As with the initial period, any observations of building damage or distress were collected. If the respondent received help in any way before initiating evacuation, the nature and source of the assistance was determined. The respondent was asked what the primary cue was which initiated their evacuation on September 11 and how many minutes passed before they started evacuating. Finally, the respondent was asked whether anything prevented them from evacuating sooner than they reported.

O.3.4 Evacuation Experience on September 11, 2001

The next group of respondents completed the questions about the September 11, 2001, evacuation experience and focused on time spent in the stairwell and/or elevator(s). The respondent was first asked whether they began their evacuation alone or with other people. Which stairwell (or elevator) the respondent entered was collected as either the stair identification letter (A, B, or C) or the geographic location, if known. Knowing where the stairwell emptied out at the bottom may also narrow down which stairwell was used, which was collected near the end of this group of questions, [Stairs A/C (44 in. wide)

emptied out to the upper, Mezzanine level, while Stair B (54 in. wide) went to the lower, Concourse level]. Next, the respondent's rationale for using a particular stairwell was probed. The respondent was then asked whether they left the stairwell or turned back for any reason during the evacuation and, if so, why?

Some events and features of the stairwells aided the progress of the evacuation, while other features constrained the progress of the evacuation. The following features or events were identified to the respondents, who were asked to indicate whether it acted as an aid to their egress: instructions or assistance from their floor warden, a police officer, or fire fighter, support/encouragement from others, exit signage, and photoluminescent paint. The following items were identified to determine whether they served to constrain the evacuation: crowded stairwells, counterflow (people moving up the stairs, against the flow of occupants), disabled or injured people being taken down the stairwell, locked doors, poor lighting, confusing or missing signage, and lack of clear instructions.

As with the initial and interim time periods, environmental cues related to fire smoke, jet fuel, and other disaster-related observations were probed, as well as whether the observation was in the immediate area or outside the tower. The final question about the respondent's own evacuation estimated the elapsed time from entering the stairwell until they left the building. A concluding evacuation question determined whether they knew why someone on their floor did not survive the WTC attack, if applicable.

O.3.5 Respondent Background

The final group of questions explored the background of the respondent relevant to evacuation. The first question identified any preexisting disabilities or injuries which made evacuation more difficult. The respondent's age, gender, and primary language were collected. If the respondent was working in the building prior to 1993, they were asked whether they were present during the February 26, 1993 bombing. If so, respondents were asked questions about their evacuation experience.

The interview concluded with an open-ended opportunity for the respondent to say anything additional about their evacuation experience on September 11, 2001. Respondents who indicated that they had a disability, were near the floors of impact, observed fire, smoke, or fireballs in their immediate area, or had a role of building responsibility on September 11, 2001, were asked if they would be willing to participate in a follow-up face-to-face interview.

O.4 PRELIMINARY RESULTS

The following section is a preliminary analysis of the telephone interview data. For this interim report, only pre-September 11, 2001 questions, or occupant background, preparedness, and training data, are analyzed and presented. Data related to September 11, 2001, evacuation experiences are currently being analyzed in the context of other data, such as face-to-face interviews and 9-1-1 tapes.

O.4.1 Response Rate Analysis

The response rate analysis of the telephone interview sample indicated an inverse relationship between floor height and the rate of response in WTC 1, as shown in the last column of Table O-3. The nonresponse weight adjustment is the inverse of the overall response rate. For example, the inverse of

25.3 percent is 3.95. In general, the weight adjustment for WTC 1 indicates that representative results should reflect that a single interview with a respondent high in the building is representative of more occupants than a single interview with a person lower in the building.

Table O–3. Response rate analysis for WTC 1.

Floor Stratum	Number of Selections	Number of Interviews	Screen	Eligibility	Interview	Overall	Non-response Weight Adjustment
1 to 42	4,464	256	46.2 %	22.6 %	54.8 %	25.3 %	3.95
43 to 75	3,714	137	48.6 %	16.6 %	45.8 %	22.3 %	4.49
76 to 92	1,802	34	42.7 %	14.7 %	30.1 %	12.9 %	7.78
Floor missing	6	0	50.0 %	0.0 %	N/A	N/A	
Total	9,986	427	46.5 %	18.9 %	48.6 %	22.6 %	

While a similar analysis of telephone interview response rates for WTC 2 (shown below in Table O–4) does not indicate a significant need to weight the results, it is a conservative assumption to be consistent with WTC 1 analysis and the results will be weighted.

Table O–4. Response rate analysis for WTC 2.

Floor Stratum	Number of Selections	Number of Interviews	Screen	Eligibility	Interview	Overall	Non-response Weight Adjustment
1 to 42	4,339	143	44.8 %	14.8 %	49.7 %	22.3 %	4.49
43 to 75	3,187	134	45.0 %	17.7 %	52.8 %	23.8 %	4.21
76 to 110	2,203	94	48.3 %	19.5 %	45.2 %	21.8 %	4.58
Floor missing	208	5	50.5 %	9.5 %	50.0 %	25.2 %	3.96
Total	9,937	376	45.8 %	16.7 %	49.5 %	22.7 %	

All subsequent telephone interview data analysis will thus reflect weighting of the results in order to more accurately generalize the results. By convention, when a sample number is indicated ($n =$), the sample number will be the actual number of responses. Where percentages are indicated, however, the percentages were weighted to allow for generalization, unless otherwise indicated.

O.4.2 Initial Building Populations

The total building population is the sum of survivors and decedents. At the time of this report, the City of New York has officially determined 2,749 people to be killed at the WTC on September 11, 2001; no official breakdown of where people were killed presently exists. While an analysis of this issue by Dennis Cauchon,³ a reporter for *USA Today*, in the months immediately following September 11, 2001, was remarkably complete, differences between his projections and the official numbers from the City of New York and other official sources exist. These differences are shown in Table O–5. For example, the number of first responders depends upon the definition of first responder. The City of New York published an occupational analysis of WTC decedents based upon a Census of Fatal Occupational Injuries

³ Cauchon, Dennis. 'For many on September 11, survival was no accident.' *USA Today*, December 20, 2001.

(U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with the New York City Department of Health and Mental Hygiene and State and Federal agencies). Four hundred and thirty-three decedent's occupations were listed as firefighting, police, or security. This number exceeds by 30 the number of FDNY, NYPD, and PAPD reported killed. This may be attributable to private security forces present inside the towers on September 11, 2001, and/or first responders not employed by New York City or the Port Authority. NIST is attempting to resolve these differences in order to fully understand the initial building population.

Table O–5. Reports of WTC decedents.

Decedent	Official Numbers		USA Today^a
WTC 1 occupants			1,434
At or above impact			1,360
Below impact			72
WTC 2 occupants			599
At or above impact			595
Below impact			4
First responders (total)	433 ^{b,c}		479
FDNY	403 ^d	343 ^e	
NYPD		23 ^f	
PAPD		37 ^g	
UA 175 and AA 11	157 ^d		157
Uncertain location in towers			147
Bystanders			10
Total number of decedents	2,749^{b,h}		2,826

a. Cauchon, Dennis. 'For many on Sept. 11, survival was no accident.'

USA Today, December 20, 2001.

b. Summary of Vital Statistics 2002: The City of New York.

Bureau of Vital Statistics, New York City Department of Health and Mental Hygiene. December 2003.

c. Table WTC 8: Occupation of Decedents. All decedents classified as 'protective service' occupations, which includes firefighting, police, and guards.

d. World Trade Center Building Performance Study. FEMA 403. May 2002.

e. Increasing FDNY's Preparedness (McKinsey Report). Available at:

http://www.ci.nyc.ny.us/html/fdny/html/mck_report/index.shtml

f. Available at http://www.ci.nyc.ny.us/html/nypd/html/memorial_01.html

g. Available at: <http://www.panynj.gov/AboutthePortAuthority/PortAuthorityPolice/InMemorium/>

h. Does not include 10 airplane hijackers for whom the City has not issued death certificates.

Using the known eligibility rates allows for a projection of the survivors of WTC 1 and WTC 2 present in the building at 8:46 a.m. on September 11, 2001. The analysis indicates that WTC 1 had approximately $7,470 \pm 750$ surviving occupants, while WTC 2 had approximately $7,940 \pm 920$ occupants. Thus, the total population of survivors from both towers was $15,410 \pm 1,180$. Table O–6 summarizes the projection of population of WTC 1 and 2 on September 11, 2001. Pending resolution of decedent locations, the total

building population at the time of the first airplane impact was $17,440 \pm 1,180$, calculated using the building decedent locations reported by Cauchon.

Table O–6. Occupancy estimates on September 11, 2001, by tower.

	WTC 1	WTC 2	Total
Number in sampling frame	39,454 ^a	47,608	87,062
Survivor occupancy rate	18.9 %	16.7 %	17.7 %
Estimated total population of survivors	7,470	7,940	15,410
<i>Statistical Precision Calculations</i>			
Sample n	427	376	803
Standard error (p) [~]	1.90 %	1.92 %	1.36 %
Standard error (total)	750	920	1,180
Confidence limits at 5 %	$\pm 1,470$	$\pm 1,790$	$\pm 2,320$
<i>Number of Occupant/Decedents</i>			
Decedents	1,434 ^b	599 ^b	2,033 - 2,192 ^c
<i>Total Building Population</i>			
	8,900	8,540	17,440

a. Includes only occupants below floor 92.

b. Calculated from Cauchon as 1,434 + 599.

c. Calculated as 2,749 – 403 first responders – 157 airplane passengers.

O.4.3 Occupant Characteristics

The results of the background analysis of the average WTC occupant are identical to the precision presented whether the data was weighted or unweighted. Occupants of the WTC towers were twice as likely to be male as female (65 percent male [n=284]) for WTC 1 and 69 percent [n=250] for WTC 2). As shown in Table O–7 and Table O–8 below, the average age of the occupants was mid-forties, with a range of people from their early twenties to mid-seventies. The vast majority of respondents (92 percent (n=739)) spoke English as their primary language, although no attempt was made to account for the fact that some telephone contacts ended with a language barrier and no interviews were conducted in any language other than English.

Table O–7. Age for WTC 1 respondents.^a

N	Valid	439
	Refuse	1
Mean		45
Median		46
Minimum		22
Maximum		73

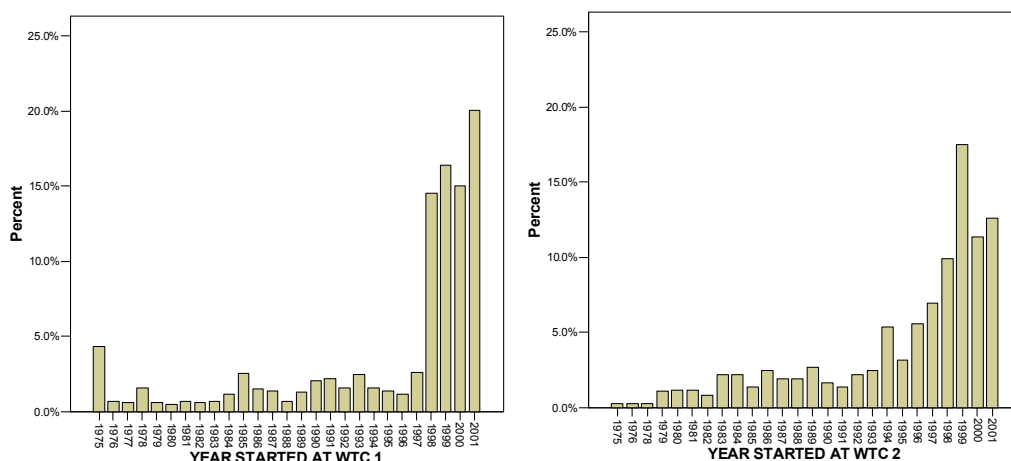
a. Mean and Median values are weighted. N, Min, and Max are unweighted.

Table O–8. Age for WTC 2 respondents.^a

N	Valid	361
	Refuse	2
Mean		45
Median		44
Minimum		21
Maximum		74

a. Mean and Median values are weighted. N, Min, and Max are unweighted.

Tenant and employee turnover at the WTC was not uncommon. Figure O–1 shows the reported start dates for respondents in WTC 1 and WTC 2. In WTC 1, 4 percent (n=18) of the occupants had worked in the building since 1975. Further, 25 percent (n=110) had been working in the building prior to the 1993 bombing, although only 15 percent (n=64) of the WTC 1 respondents were present on February 26, 1993. For WTC 1, 67 percent (n=287) of the occupants had started working in the building in the last four years (1998–2001). The mean residence time in WTC 1 was over 5.6 years, while the median was 2 years.



Percentages are weighted.

Figure O–1. Employment start date at WTC.

Occupant tenure in WTC 2 demonstrated a similar trend. While only one respondent had worked in the building since 1975, 25 percent (n=91) of the respondents had been working in the building prior to the 1993 bombing (with 16 percent (n=59) present on the day of the bombing). Another 51 percent (n=185) started working in the building in the previous 4 years (1998–2001). The mean residence time in WTC 2 (n=360) was 5.9 years, while the median was 3 years.

Overall, 7 percent (n=56) had a formal responsibility or special knowledge about the building. These respondents were fire safety staff, floor wardens, searchers, building maintenance, or security staff. Approximately 13 percent (n=105) of the respondents were employed by the Port Authority, which may not imply a special knowledge of the building as some Port Authority employees had job duties related to functions outside the WTC.

Some 6 percent (n=52) reported having a limitation which impacted their ability to evacuate. These limitations included obesity, heart condition, needing assistance to walk, pregnancy, asthma, elderly, chronic condition, recent surgery or injury, and other.

O.4.4 Previous Experience

Whether an occupant had a previous evacuation experience may have affected the decisions an individual made during the September 11, 2001, evacuation. Further analysis will develop this hypothesis. Of the WTC 1 occupants present on September 11, 2001, 16 percent (n=64) were also present during the 1993 Bombing. In WTC 1, 60 percent (n=38) of evacuees in 1993 reported that they evacuated immediately, 30 percent (n=20) reported that they waited to evacuate, and 9 percent (n=6) did not recall. Most (95 percent [n=53]) who were able to recall their 1993 evacuation decision felt that they made the right decision, while 5 percent (n=3) did not believe they made the right decision.

Similarly, 16 percent (n=59) of WTC 2 evacuees on September 11, 2001, also evacuated in 1993. In WTC 2, however, only 75 percent (n=42) felt that they made the right decision in 1993, possibly due to the fact that many more waited to evacuate in 1993 in WTC 2 (69 percent (n=39)) than did so in WTC 1. Only 31 percent (n=17) who reported their decision evacuated immediately from WTC 2 in 1993, keeping in mind that the bomb had a more significant impact upon WTC 1 in 1993.

O.4.5 Preparedness and Training

Long a cornerstone of public policy on the emergency preparedness of office workers around the country, the Port Authority required tenants to conduct regular fire drills and appoint employee floor wardens and searchers. Overall, 66 percent (n=529) of WTC 1 and WTC 2 occupants reported participation in at least one fire drill in the 12 months immediately prior to September 11, 2001. Another 17 percent (n=139) reported that they did not participate in any fire drills in the 12 months prior to September 11, 2001, and 17 percent (n=135) did not know. Fire drill participation rates were similar between the two towers, as shown in Table O-9.

Table O-9. WTC fire drills in 12 months prior to September, 11, 2001.

Number of Drills	WTC 1 ^a	WTC 2 ^a
None	18 % (n=78)	17 % (n=61)
1	13 % (n=57)	8 % (n=29)
2	21 % (n=90)	24 % (n=88)
3	11 % (n=47)	15 % (n=53)
4	10 % (n=44)	9 % (n=32)
5 – 11	7 % (n=31)	9 % (n=32)
12 or more	3 % (n=13)	4 % (n=13)
Don't know	18 % (n=80)	15 % (n=55)

a. Percentages are weighted, n values unweighted.

One of the goals of fire drill training is to make occupants aware of the location of the emergency exits. Of respondents who reported participation in a fire drill, 93 percent (n=490) were instructed about the

location of the nearest stairwell. However, of the respondents who reported being shown a stairwell, 82 percent (n=432) did not enter or use the stairwell. Some 17 percent (n=92) reported that they did use the stairs during a drill, while approximately 1 percent (n=5) reported not knowing. Overall, more than half (51 percent (n=415)) of the occupants had never used a stairwell in WTC 1 or WTC 2 prior to September 11, while 48 percent (n=386) had used a stairwell. Two persons reported not knowing whether they had used the stairs previously.

Another goal of the fire drills was to introduce the floor warden system and evacuation procedures. Most occupants (82 percent (n=528)) with fire drill training were aware that there was a floor warden for their floor. Approximately 70 percent (n=557) of all occupants reported that they were aware of the evacuation procedures. When asked what those evacuation procedures comprised, however, answers varied significantly, including: wait in hallway for further instructions; do not use elevators, use stairs; meet at a designated site outside the building for a head count; or proceed down (varied number of) flights of stairs and wait. Further analysis of the understanding and implementation of the emergency procedures is under way.

O.5 SUMMARY

Eight hundred and three occupants of WTC 1 and WTC 2 were interviewed by telephone. Sample disposition analysis indicated differential nonresponse, particularly for WTC 1. In other words, the closer the occupant was to the impact area in WTC 1, the more likely it was that they would choose not to complete the telephone interview. Telephone interview percentages were then weighted to adjust for this effect.

On the morning of September 11, 2001, 17,440 people ($\pm 1,180$) were present at WTC 1 and WTC 2. This does not include first responders. The initial population of both towers was similar: 8,900 (± 750) in WTC 1 and 8,540 (± 920) in WTC 2.

The average age of an occupant of the WTC towers was mid-forties. Two-thirds of WTC 1 occupants had started working in the building during the previous 4 years (1998–2001), while half of WTC 2 occupants had begun working there during the same time period. Overall, 7 percent of occupants reported having special knowledge about the building, and 6 percent reported a preexisting limitation to their mobility.

Of those present on September 11, 2001, 16 percent were also present during the 1993 bombing. Two-thirds of occupants reported having participated in a fire drill in the 12 months immediately prior to September 11, while 17 percent reported that they received no training during that same period. Ninety-three percent of those participating in fire drills were instructed about the location of the nearest stairwell. Slightly over half of the occupants, however, had never used a stairwell at the WTC prior to September 11.

Significant additional analysis is presently under way. It is particularly important that results of questions related to the events, observations, and activities within the towers on September 11, 2001, be analyzed within the context of the findings coming from face-to-face interviews, focus groups, and other data collection activities.

Attachment 1

CATI ADVANCE LETTER TO OCCUPANTS

Dear [Name]:

You are being asked to voluntarily participate in the federal investigation of the collapse of World Trade Center structures on September 11, 2001. The National Institute of Standards and Technology (NIST) is investigating the cause of the collapse of the World Trade Center towers on September 11 in order to improve the way that building professionals, emergency responders, and regulatory authorities prepare for and respond to future emergency events.

Because you were an occupant of the WTC buildings, you have been identified as a person who can provide NIST with information critical to its investigation. Your cooperation with the investigation involves participating in a 20 minute telephone interview with a representative of our survey research contractor, Datasource. The purpose of the interview is to gather information about where you were in the WTC buildings at the time of the September 11 events, what you observed and experienced, and how you evacuated the building.

You may also be asked to participate in a voluntary face-to-face interview. Participating in the telephone survey does not obligate you to participate in the face-to-face interview.

NIST and its contractors NuStats and Datasource will keep the identity of all participating individuals as confidential as possible. To the extent permitted by law, no one other than NIST, authorized Federal officials, NIST contractors NuStats and Datasource, and Essex Institutional Review Board will have access to your identity. Access to identifying information will only be provided to staff members on an as-needed basis. Data will be reported in summary form.

NIST is a non-regulatory agency within the U.S. Department of Commerce and is conducting this investigation under the authority of the National Construction Safety Team Act (P.L. 107-231). The investigation involves strict fact-finding. No part of the NIST Investigation report can be used in any suit or action for damages. For more information, see <http://wtc.nist.gov>.

A representative of Datasource will phone you in the next week or two. Please be aware that he / she will want to conduct the interview at your convenience. If you agree to do the survey, you may choose not to answer any question. If you wish, you can choose to withdraw your responses at any time during the interview or at the end of the interview.

If you have any questions or comments regarding your participation in the NIST investigation, please feel free to contact Dr. Johanna Zmud, NuStats project director, at 800-447-8287, ext. 2225 or Jason Averill, NIST project director, at 301-975-2585. If you have any questions about your rights as a participant or if you have any concerns, you may contact the Essex Institutional Review Board, Inc. (IRB), 121 Main Street, Lebanon, NJ; Phone: 908-236-7735. The IRB is a committee that has reviewed this research investigational plan to help ensure that your rights and welfare are protected and that the investigation is carried out in an ethical manner.

Sincerely,

NIST OFFICIAL

This page intentionally left blank.

Attachment 2

ORAL CONSENT STATEMENT

THE TELEPHONE INTERVIEWER USES THE FOLLOWING SEQUENCE OF STATEMENTS AND QUESTIONS TO EFFECT ORAL CONSENT PRIOR TO BEGINNING THE INTERVIEW:

SUBJECT NAME: _____

Hi, may I please speak with <SUBJECT NAME>?

YES, CONTINUE	1	
NO	2	SET CALLBACK

Hi, my name is _____ and I am calling on behalf of the National Institute of Standards and Technology (NIST). NIST is conducting the federal investigation of the World Trade Center disaster. *Information about the investigation is available at the website "wtc.nist.gov" or we can provide you a toll-free number to call.*

We are interviewing people about their experiences on September 11. We sent you a letter about the study informing you of our call. Did you receive the letter?

YES	1	→ ASK IF THERE ARE ANY QUESTIONS
NO	2	→ ASK IF THERE ARE ANY QUESTIONS

SCREENER:

First, I need to ask you a few questions because we want to speak to people who had certain types of experiences that may be especially helpful to NIST. For this study, we are conducting interviews with people who were in WTC 1 or WTC 2 during the September 11, 2001 attacks.

(SCREEN) At the time of the attack, were you in WTC 1 or WTC 2 at the World Trade Center?

YES	01	
NO	02	[THANK AND TERMINATE]
RF	99	[THANK AND TERMINATE]

(SCREEN) Which tower were you in?

WTC1	01	
WTC2	02	
OTHER, specify	97	[THANK AND TERMINATE]
RF	99	[THANK AND TERMINATE]

(SCREEN) What floor were you on?

<Enter floor number>

BASEMENT	990
CONCOURSE/LOBBY	991
PLAZA	992
OTHER, SPECIFY	997
DK	998
RF	999

PROGRAMMER NOTE: NEED CODED FLOOR NUMBER CATEGORIES FOR SAMPLE TRACKING:

LOWER FLOORS (T1: BASEMENT – 42)	01
LOWER FLOORS (T2: BASEMENT – 42)	02
MIDDLE FLOORS (T1: 43 – 76)	03
MIDDLE FLOORS (T2: 43 – 76)	04
UPPER FLOORS (T1: 77 – 91)	05
UPPER FLOORS (T2: 77 – 110)	06

We would like you to participate in our study. Before we start, I'd like to read a statement to you about this study to help you decide if you wish to participate:

In this study, we want to ask about when and how you left the tower you were in during the attack on 9/11. The information you provide will help engineers and emergency planners to improve the safety and evacuation procedures for high rise buildings. The interview length is about 20 minutes and your participation is voluntary. Because this interview involves recalling a traumatic event, you may experience emotional discomfort. You are free to skip over any question you do not wish to answer. You may take a short break or stop the questions at any time. We can also provide you counseling referrals if you like. *Your identity will be kept as confidential as possible. To the extent permitted by law, no one other than NIST, authorized Federal officials, NIST contractors NuStats and Datasource, and Essex Institutional Review Board will have access to your identity. There are no direct benefits to participants. If you have any questions or comments regarding your participation in the NIST investigation, you may contact Dr. Johanna Zmud, NuStats project director, at 800-447-8287, extension 2225. If you have any questions or concerns about your rights as a participant, you may contact the Essex Institutional Review Board at 908-236-7735.*

3a. Are you willing to participate?

YES, NOW	1	
YES, LATER	2	[SET CALLBACK APPOINTMENT]
NO	99	THANK AND TERMINATE

Attachment 3

TELEPHONE INTERVIEW INSTRUMENT

I would like to start by getting some background information. What year did you first start working at the World Trade Center? RANGE: 1975 – 2001

\$E 1975 2001

DK	9998
RF	9999
«YRWRK»	

On September 11, 2001, were you in any of the following positions with the World Trade Center?

PORT AUTHORITY STAFF	1	
FIRE SAFETY STAFF	2	
FLOOR WARDEN OR SEARCHER	3	
MAINTENANCE OR SECURITY STAFF	4	
NONE OF THESE	0	X
DK	8	
RF	9	
«ROLES_01»		
«ROLES_02»		
«ROLES_03»		
«ROLES_04»		

During the year from September 11, 2000 to September 11, 2001, how many fire drills did you take part in at the World Trade Center?

\$E 0 99

NONE	00	=> SWLOC
DK	98	=> SWLOC
RF	99	=> SWLOC
«FIRED»		

During these drills, were you ever instructed about the location of the emergency stairwell nearest to your office?

YES	1	
NO	2	=> SWLOC
DK	8	=> SWLOC
RF		=> SWLOC
«DEXIT»		

How many emergency stairwells were you shown?

ONE	1
TWO	2

THREE		=> LVFSW
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«HMEXT»
«O_HMEXT»

Before September 11, had you learned in other ways about the locations of the three emergency stairwells?

YES	1
NO	2
DK	8
RF	9

«SWLOC»

SKIP IF NO FIRE DRILLS

=> USESW

Else => +1

if FIRED=00,98-99

«SOUT1»

During any of the fire drills, did you leave your floor using one of the stairwells?

YES	1	
NO	2	=> USESW
DK	8	=> USESW
RF	9	=> USESW

«LVFSW»

Which stairwells did you use?

STAIRWELL A	1	
STAIRWELL B	2	
STAIRWELL C	3	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«WHSW1_01»
«WHSW1_02»
«WHSW1_03»
«WHSW1_04»
«O_WHSW1»

Which side of the building was the stairwell located on?

=> +1

if NOT WHSW1=8

NORTH	1	
SOUTH	2	
EAST	3	
WEST 4	4	
OTHER, SPECIFY	7	O
DK	8	
RF	9	
«WHSW1»		
«O_WHSW1»		

Had you ever used any of the emergency stairwells prior to September 11?

=> DHELP

if LVFSW=1

YES	1	
NO	2	=> DHELP
DK	8	=> DHELP
RF	9	=> DHELP
«USES W»		

SKIP FOR NO DRILLS AND NO USE OF STAIRWELLS

=> AEVOF

Else => +1

if FIRED=00,98,99 AND USESW>1

«SOUT2»

Which stairwell did you use?

STAIRWELL A	1	
STAIRWELL B	2	
STAIRWELL C	3	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«WHSW2_01»

«WHSW2_02»

«WHSW2_03»

«WHSW2_04»

«O_WHSW2»

SKIP IF NO FIRE DRILLS

=> AEVOF

Else => +1

if FIRED=00,98-99

«SOUT3»

When you were evacuating on September 11, how helpful was your experience during these drills?

=> +1

if FIRED=00

VERY HELPFUL	1
SOMEWHAT HELPFUL	2
SOMEWHAT UNHELPFUL	3
VERY UNHELPFUL	4
DK	8
RF	9

«DHELP»

Prior to September 11, were you aware of the evacuation procedures for your floor?

YES	1	
NO	2	=> FLWAR
DK	8	=> FLWAR
RF	9	=> FLWAR

«AEVOF»

Prior to September 11, what was the evacuation procedure you were told to follow?

LEAVE BUILDING IMMEDIATELY	1	
GO TO ELEVATOR LOBBY	2	
GO TO FLOORS UP OR DOWN	3	
GO TO ROOF	4	
STAY WHERE YOU ARE	5	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«EVACP»

«O_EVACP»

Did you know that there was a Floor Warden for your floor?

=> +1

if ROLES=1-4

YES	1
NO	2
DK	8

RF

9

«FLWAR»

The next questions ask about 3 different time periods. The first series of questions asks about when you first became aware that something had happened at the World Trade Center. This is a period of just a few seconds. The next series of questions asks about the time from when you first became aware that something had happened, to the time you first entered a stairwell or elevator to exit the building. The third series of questions asks about what happened during your evacuation, meaning the time from when you first entered a stairwell or elevator until you exited the tower. At the end of the interview, I will ask you if there is anything else about your experience on September 11 that you would like to contribute.

CONTINUE

1 D

«IFAWA»

Now thinking back to the morning of September 11, how did you first become aware that something had happened at the World Trade Center?

\$E 1 9

HEARD SOMETHING (BOOM, CRASH, EXPLOSION, BLAST, ROAR, RUMBLING, ALARM)	01	
SAW SMOKE OR FLAMES	02	
SAW DEAD BODIES	03	
SAW A PLANE	04	
SAW DEBRIS	05	
FELT SOMETHING (BUILDING MOVING, IMPACT, SHAKING, SWAYING, ROCKING, JOLT, EARTHQUAKE)	06	
FELL DOWN/FELL OFF CHAIR	07	
WARNED BY SOMEONE AROUND ME	08	
CONTACTED VIA PHONE	09	
CONTACTED VIA EMAIL	10	
PUBLIC ADDRESS SYSTEM	11	
NEWS MEDIA (TELEVISION, RADIO)	12	
OFFICE FURNITURE OR FIXTURES FALLING	13	
FURNITURE OR OTHER ITEMS FALLING OVER/DOWN	14	
OTHER, SPECIFY	97	O
DK	98	
RF	99	

«FAWAR»

«O_FAWAR»

What were you doing when you first became aware that something had happened to the World Trade Center? PROBE: Anything else?

\$E 1 9

WORKING INDEPENDENTLY	01
IN MEETING	02

ON PHONE	03	
CHECKING/WRITING EMAIL	04	
WAITING FOR ELEVATOR	05	
RIDING IN ELEVATOR	06	
CHATTING WITH COWORKERS	07	
EATING/HAVING COFFEE	08	
ENTERING BUILDING	09	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«ACTV1_01»
 «ACTV1_02»
 «ACTV1_03»
 «ACTV1_04»
 «ACTV1_05»
 «ACTV1_06»
 «ACTV1_07»
 «ACTV1_08»
 «ACTV1_09»
 «ACTV1_10»
 «O_ACTV1»

At the moment when you first became aware that something had happened at the World Trade Center, did you notice any of the following? FOLLOW UP: Was that in your immediate area or outside the Tower?			
	Did Not Notice	Noticed in Immediate Area	Noticed Outside the Tower
Smoke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire or Flames	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fireballs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collapsed walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jet Fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severely or fatally injured people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sprinklers going on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A fire alarm sounding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power outage or flickering lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fallen ceiling tiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«NOT01_01»

«NOT01_02»

TIME PERIOD: 1

Were there any disaster related events going on around you at this time?

=> WHTW2

if OR[NOT01-NOT11]=2-3

YES	1	
NO	2	=> WHTW2
DK	8	=> WHTW2
RF	9	=> WHTW2

«OEVEN»

TIME PERIOD: 1

What was going on?

ENTER RESPONSE	1	O
DK	8	
RF	9	

«GOING»

«O_GOING»

TIME PERIOD: 1

Were you still in<WHTOW>at this time? IF YES, SELECT APPROPRIATE CHOICE IF NO, ASK WHICH TOWER THEY WERE IN

WTC 1	1
WTC 2	2
DK	8
RF	9

«WHTW2»

TIME PERIOD: 1

And were you still on the<WHFLO>floor at this time? RANGE: 1st - 110th FLOOR IF YES, SELECT/ENTER FLOOR IF NO, ASK WHICH FLOOR THEY WERE ON AND SELECT/ENTER IT

\$E 1 110

BASEMENT	990	
CONCOURSE/LOBBY	991	
PLAZA	992	
IN ELEVATOR	993	
OTHER, SPECIFY	997	O
DK	998	
RF	999	

«WHFL2»

«O_WHFL2»

TIME PERIOD: 1

At the moment when you first became aware that something had happened to the World Trade Center, approximately how many people were with you? RANGE: 0 - 999 PEOPLE WE WANT THE NUMBER OF PEOPLE THAT WERE IN THE SAME LOCATION AS THE RESPONDENT. (IN THEIR LINE OF SIGHT)

\$E 0 999

NONE	00	=> YOUIN
DK	98	=> YOUIN
RF	99	=> YOUIN

«PEOP1»

TIME PERIOD: 1

Were any of these people injured at that time as a result of the event?

YES	1
NO	2
DK	8
RF	9

«PEOIN»

TIME PERIOD: 1

Were you injured at that time, as a result of the event?

YES	1	
NO	2	=> ORISK
DK	8	=> ORISK
RF	9	=> ORISK

«YOUIN»

TIME PERIOD: 1

Would you say your injury was a ...

AN INJURY THAT DID NOT IMPACT YOUR ABILITY TO EVACUATE,	1	
AN INJURY THAT DID IMPACT YOUR ABILITY TO EVACUATE BUT		
WAS NOT LIFE THREATENING, OR	2	
A LIFE THREATENING INJURY	3	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«NATIN»

«O_NATIN»

TIME PERIOD: 1

Still thinking about the moment when you first became aware that something had happened at the World Trade Center, did you believe that other people were in danger of being killed?

YES	1
NO	2
DK	8
RF	9

«ORISK»

TIME PERIOD: 1

Did you believe you were in danger of being killed?

YES	1
-----	---

NO	2
DK	8
RF	9

«YRISK»

TIME PERIOD: 2

Now please think about the time period between when you first became aware that something had happened and when you first entered a stairwell or elevator to leave the tower. During this entire time period, were you given any additional information about what was going on? AFTER BECOMING AWARE OF THE EVENT, BUT BEFORE EVACUATION.

YES	1	
NO	2	=> SEEKI
DK	8	=> SEEKI
RF	9	=> SEEKI

«GETIN»

TIME PERIOD: 2

Who gave you this information? PROBE: Anyone else?

MANAGER/SUPERVISOR	1	
COWORKER INSIDE BUILDING	2	
FAMILY/FRIEND OUTSIDE BUILDING	3	
POLICE/FIREFIGHTER	4	
FLOOR WARDEN	5	
MEDIA PERSON (TV/RADIO)	6	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«WHINF_01»

«WHINF_02»

«WHINF_03»

«WHINF_04»

«WHINF_05»

«WHINF_06»

«WHINF_07»

«O_WHINF»

TIME PERIOD: 2

What information did you get? PROBE: Any other information?

INFORMATION ABOUT WHAT HAD HAPPENED	1	
INSTRUCTIONS TO LEAVE	2	
INSTRUCTIONS TO STAY	3	
OTHER, SPECIFY	7	O
DK	8	X

RF	9	X
----	---	---

«WHATI_01»
«WHATI_02»
«WHATI_03»
«WHATI_04»
«O_WHATI»

TIME PERIOD: 2

How did you get this information? PROBE: Any other way?

FACE TO FACE	1	
TELEPHONE	2	
EMAIL/BLACKBERRY	3	
PA ANNOUNCEMENT	4	
TV/RADIO	5	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«HOWGT_01»
«HOWGT_02»
«HOWGT_03»
«HOWGT_04»
«HOWGT_05»
«HOWGT_06»
«O_HOWGT»

TIME PERIOD: 2

And during this same time period, did you try to get additional information about what was going on?
AFTER BECOMING AWARE OF THE EVENT, BUT BEFORE EVACUATION

YES	1	
NO	2	=> ORIS2
TRIED, BUT WAS UNABLE TO GET INFORMATION	3	=> ORIS2
DK	8	=> ORIS2
RF	9	=> ORIS2

«SEEKI»

TIME PERIOD: 2

Who did you go to for this information? PROBE: Anyone else?

MANAGER/SUPERVISOR	1
COWORKER INSIDE BUILDING	2
FAMILY/FRIEND OUTSIDE BUILDING	3
POLICE/FIREFIGHTER	4
FLOOR WARDEN	5
MEDIA PERSON (TV/RADIO)	6

OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«GOINF_01»
 «GOINF_02»
 «GOINF_03»
 «GOINF_04»
 «GOINF_05»
 «GOINF_06»
 «GOINF_07»
 «O_GOINF»

TIME PERIOD: 2

What type of information did you try to find? PROBE: Anything else?

INFORMATION ABOUT WHAT HAD HAPPENED	1	
INSTRUCTIONS TO LEAVE	2	
INSTRUCTIONS TO STAY	3	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«WHAI2_01»
 «WHAI2_02»
 «WHAI2_03»
 «WHAI2_04»
 «O_WHAI2»

TIME PERIOD: 2

How did you get this information? PROBE: Any other way?

FACE TO FACE	1	
TELEPHONE	2	
EMAIL/BLACKBERRY	3	
PA ANNOUNCEMENT	4	
TV/RADIO	5	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«HOWG2_01»
 «HOWG2_02»
 «HOWG2_03»
 «HOWG2_04»
 «HOWG2_05»
 «HOWG2_06»
 «O_HOWG2»

TIME PERIOD: 2

And during the time between when you first became aware that something had happened at the World Trade Center and when you first entered the stairwell or elevator to leave the tower, did you believe that other people were in danger of being killed? AFTER BECOMING AWARE OF THE EVENT, BUT BEFORE EVACUATION

=> YRIS2
if ORISK=1

YES	1
NO	2
DK	8
RF	9

«ORIS2»

TIME PERIOD: 2

During that time period, did you believe you were in danger of being killed?

=> PEODO
if YRISK=1

YES	1
NO	2
DK	8
RF	9

«YRIS2»

TIME PERIOD: 2

During this time period, what were the people around you doing? PROBE: Were they doing anything else? AFTER BECOMING AWARE OF THE EVENT, BUT BEFORE EVACUATION
\$E 0 10

NOONE AROUND/WAS ALONE	00	X
TALKING TO OTHERS	01	
GATHERING PERSONAL/WORK ITEMS	02	
SEARCHING FOR OTHERS	03	
CALLING OTHERS	04	
FIGHTING FIRE/SMOKE	05	
LOCKING UP	06	
WORKING	07	
EVACUATING THE TOWER	08	
CRYING, RUNNING AROUND, IN SHOCK	09	
HELPING OTHERS	10	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«PEODO_01»

«PEODO_02»
 «PEODO_03»
 «PEODO_04»
 «PEODO_05»
 «PEODO_06»
 «PEODO_07»
 «PEODO_08»
 «PEODO_09»
 «PEODO_10»
 «O_PEODO»

TIME PERIOD: 2

Did the people around you start evacuating before you did?

=> DOBEF

if PEODO=08

YES	1
NO	2
DK	8
RF	9

«EVACB»

TIME PERIOD: 2

Did you do any of the following before starting your evacuation?

\$E 1 9

TALK TO ANOTHER PERSON FACE TO FACE	01	
GATHER PERSONAL ITEMS	02	
TELEPHONE OTHER PEOPLE	03	
CONTINUE WORKING	04	
SAVE OR TRANSFER COMPUTER FILES	05	
SEARCH FOR OTHERS	06	
FIGHT FIRE OR SMOKE	07	
MOVE TO ANOTHER FLOOR	08	
HELP OTHERS	09	
LOGGING OFF/SHUTTING DOWN COMPUTER	10	
NONE OF THESE	11	X

«DOBEF_01»
 «DOBEF_02»
 «DOBEF_03»
 «DOBEF_04»
 «DOBEF_05»
 «DOBEF_06»
 «DOBEF_07»
 «DOBEF_08»

TIME PERIOD: 2

Did you do anything else during this time?

ENTER RESPONSE	1	O
NO OTHER ACTIVITIES	0	
DK	8	
RF	9	

«OACTI» «O_OACTI»

TIME PERIOD: 2

Before you began your evacuation, was there anything you wanted to do, but couldn't?

YES	1	
NO	2	=> SEE01
DK	8	=> SEE01
RF	9	=> SEE01

«WANTD»

TIME PERIOD: 2

What was that? PROBE: Anything else?

\$E 1 7

GATHER WORK ITEMS	01	
GATHER PERSONAL BELONGINGS	02	
CALL FRIEND/FAMILY MEMBER	03	
FIND FRIEND/COWORKER	04	
HELP FRIEND/COWORKER	05	
LOCK UP	06	
EVACUATE IMMEDIATELY	07	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«WANAC_01»
«WANAC_02»
«WANAC_03»
«WANAC_04»
«WANAC_05»
«WANAC_06»
«WANAC_07»
«WANAC_08»
«O_WANAC»

TIME PERIOD: 2

Why couldn't you do that/those things?

\$E 1 9

AFRAID	01	
LOCKED DOORS	02	
PHONE LINES DEAD	03	
INJURED	04	
EXIT BLOCKED	05	
TOO CROWDED	06	
TOLD TO STAY IN BUILDING	07	
TOLD TO LEAVE	08	
FATIGUE	09	
DISABLED	10	
SMOKE	11	
DAMAGE TO FLOOR	12	
WAS HELPING OTHERS	13	
OTHER, SPECIFY	97	O
DK	98	
RF	99	

«WHYNO_01»
 «WHYNO_02»
 «WHYNO_03»
 «WHYNO_04»
 «WHYNO_05»
 «WHYNO_06»
 «WHYNO_07»
 «WHYNO_08»
 «WHYNO_09»
 «WHYNO_10»
 «WHYNO_11»
 «WHYNO_12»
 «WHYNO_13»
 «WHYNO_14»
 «O_WHYNO»

Still thinking about the time between when you first became aware that something had happened at the World Trade Center and when you entered the stairwell or elevator to leave the tower, did you notice any of the following? FOLLOW UP: Was that in your immediate area or outside the Tower?			
	Did Not Notice	Noticed in Immediate Area	Noticed Outside the Tower
Smoke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire or Flames	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fireballs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collapsed walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jet Fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severely or fatally injured people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sprinklers going on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A fire alarm sounding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power outage or flickering lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fallen ceiling tiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«SEE01_01»

«SEE01_02»

TIME PERIOD: 2

Were there any disaster related events going on around you at this time?

=> EVACF

if OR[SEE01-SEE11]=2-3

YES	1	
NO	2	=> HELPY
DK	8	=> HELPY
RF	9	=> HELPY

«ODISE»

TIME PERIOD: 2

What was going on?

ENTER RESPONSE	1	O
DK	8	
RF	9	

«GOIN2»

«O_GOIN2»

TIME PERIOD: 2

Were you still on the<WHFL2>floor at this time? RANGE: 1st - 110th FLOOR IF YES,
SELECT/ENTER FLOOR IF NO, ASK WHICH FLOOR THEY WERE ON AND SELECT/ENTER IT

\$E 1 110

=> +1

if (AND[SEE01-SEE11]=1) AND PEODO>0 AND PEODO<98

BASEMENT	990
CONCOURSE/LOBBY	991
PLAZA	992
ELEVATOR	993
OTHER, SPECIFY	997
DK	998
RF	999

«EVACF»

«O_EVACF»

TIME PERIOD: 2

Did anyone help you in any way before you started your evacuation?

YES	1	
NO	2	=> DECID
DK	8	=> DECID
RF	9	=> DECID

«HELPHY»

TIME PERIOD: 2

Who helped you? PROBE: Anyone else? WE WANT THEIR ROLE NOT THE NAME OF THE PERSON

POLICE OFFICER/FIREFIGHTER	1	
COWORKER	2	
STRANGER	3	
FLOOR WARDEN	4	
MANAGER/SUPERVISOR	5	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«WHOHE_01»

«WHOHE_02»

«WHOHE_03»

«WHOHE_04»

«WHOHE_05»

«WHOHE_06»

«O_WHOHE»

TIME PERIOD: 2

What did they help you with? PROBE: Anything else?
\$E 1 7

LOCATING OTHERS	01	
HELPING OTHERS	02	
FINDING EXITS	03	
TREATING YOUR INJURIES	04	
PROVIDED INFORMATION/INSTRUCTIONS	05	
GATHER BELONGINGS	06	
CALM DOWN/EMOTIONAL ASSISTANCE	07	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«WHATD_01»

«WHATD_02»

«WHATD_03»

«WHATD_04»

«WHATD_05»

«WHATD_06»

«WHATD_07»

«WHATD_08»

«O_WHATD»

TIME PERIOD: 2

What was the one thing that made you decide to evacuate?

WAS TOLD TO EVACUATE	1	
FRIENDS CO-WORKERS EVACUATED	2	
AFRAID/FELT IN DANGER	3	
FIRE ALARM WAS GOING OFF	4	
SAW SMOKE	5	
SAW FIRE	6	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«DECID»

«O_DECID»

How many minutes had passed before you started to evacuate? IF NEEDED: How much time passed between when you first became aware that something had happened to the World Trade Center and when you entered the stairwell or elevator to leave the tower. THIS IS NOT TIME TO EVACUATE. PLEASE CLARIFY WITH RESPONDENT IF TIME APPEARS TOO LONG. RESPONDENT WAS IN<WHTW2> RANGE FOR WTC 1: 1 - 103 MINUTES RANGE FOR WTC 2: 1 - 75 MINUTES
\$E 1 103

DK	998
RF	999

«TIMEP»

SKIP FOR TOWERS

=> EVAC2

Else => +1

if WHTW2=2

«SKIP1»

Did you begin your evacuation... WE ARE INTERESTED IN WHAT THEY KNOW NOW. THEY MAY NOT HAVE KNOWN WHEN THEY WERE EVACUATING, BUT NOW THEY CAN TELL US WHEN IT WAS.

BEFORE THE PLANE HIT WTC 2	1
AFTER THE PLANE HIT WTC 2, BUT BEFORE THE WTC 2 COLLAPSE	2
AFTER THE WTC 2 COLLAPSE	3
DK	8
RF	9

«EVAC1»

SELECT1

\$S NS=2 CO=1 IN=EVAC1<=1 ;CO=2 IN=EVAC1<=2 ;

BEFORE THE PLANE HIT WTC 2	1
AFTER THE PLANE HIT WTC 2, BUT BEFORE THE WTC 2 COLLAPSE	2
AFTER THE WTC 2 COLLAPSE	3
DK	8
RF	9

«SEL1»

SELECT2

BEFORE THE PLANE HIT WTC 2	1
AFTER THE PLANE HIT WTC 2, BUT BEFORE THE WTC 2 COLLAPSE	2
AFTER THE WTC 2 COLLAPSE	3
DK	8
RF	9

«SEL2»

Did you begin your evacuation...

=> EVCSO

if EVAC1>0

BEFORE THE PLANE HIT WTC 2	1
AFTER THE PLANE HIT WTC 2	2
DK	8
RF	9

«EVAC2»

SELECT4

\$S CO=1 IN=EVAC2<=1 ;

BEFORE THE PLANE HIT WTC 2	1
AFTER THE PLANE HIT WTC 2	2
DK	8
RF	9

«SEL3»

Was there anything that kept you from evacuating sooner?

YES, RECORD RESPONSE	1	O
NO	2	
DK	8	
RF	9	

«EVCSO»
«O_EVCSO»

TIME PERIOD: 3

When you began your evacuation, were you alone or with other people? PEOPLE THAT THEY KNOW,
PEOPLE THAT THEY WERE TALKING WITH

ALONE	1
WITH OTHER PEOPLE	2
DK	8
RF	9

«ALONE»

TIME PERIOD: 3

Which stairwell did you use for your evacuation?

STAIRWELL A	1	
STAIRWELL B	2	
STAIRWELL C	3	
USED ELEVATOR	4	=> FOLA1
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«STAIR_01» «STAIR_02»
«STAIR_03»
«STAIR_04»
«STAIR_05»
«O_STAIR»

TIME PERIOD: 3

Which side of the building was the stairwell located on?

=> /WHYST

if NOT STAIR=8,7

NORTH	1	
SOUTH	2	
EAST	3	
WEST	4	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«WHISL»
«O_WHISL»

TIME PERIOD: 3

Why did you choose that/those stairwell(s) for your evacuation? PROBE: Any other reason?

CLOSEST ONE	1	
FOLLOWED OTHER PEOPLE TO IT	2	
OTHER EXITS WERE BLOCKED	3	
SAME AS I USED IN PREVIOUS EMERGENCY	4	
I WAS TOLD TO USE THIS STAIRWELL	5	
OTHER, SPECIFY	7	O
DK	8	X
RF	9	X

«WHYST_01»

«WHYST_02»

«WHYST_03»

«WHYST_04»

«WHYST_05»

«WHYST_06»

«O_WHYST»

TIME PERIOD: 3

At any time during your evacuation, did you leave that/those stairwell(s)? DO NOT INCLUDE PEOPLE WHO FOLLOWED THE PASSAGE WHERE THE STAIRWELLS START AND END.

YES	1	
NO	2	=> FOLA1
DK	8	=> FOLA1
RF	9	=> FOLA1

«LEVST»

TIME PERIOD: 3

Which floor were you on when you left the stairwell? IF RESPONDENT UNSURE, SELECT 997 AND RECORD RANGE OF FLOORS EXAMPLE: 34-40

\$R 1 110

UNSURE, RECORD RESPONSE 997 O

«FLLST»

«O_FLLST»

TIME PERIOD: 3

Why did you leave the stairwell? PROBE: Any other reason?

\$E 1 9

I GOT LOST	01
WAS TOLD TO LEAVE STAIRWELL	02
TO HELP SOMEONE	03
TO GO BACK AND GET SOMETHING	04
TOO CROWDED	05

SMOKE IN STAIRWELL	06	
PATH OBSTRUCTED	07	
A LOCKED DOOR	08	
STAIRWELL LED TO A FLOOR	09	
OTHER, SPECIFY	97	O
DK	98	
RF	99	

«WHYLS_01»
«WHYLS_02»
«WHYLS_03»
«WHYLS_04»
«WHYLS_05»
«WHYLS_06»
«WHYLS_07»
«WHYLS_08»
«WHYLS_09»
«WHYLS_10»
«O_WHYLS»

Screen [Template 3] -> FLOA5

=> +1

if FLWAR>1

Did any of the following help you evacuate while you were in the building?				
	Yes	No	DK	RF
Instructions or assistance from your floor warden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructions or assistance from Police or Firefighters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support and encouragement from others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exit signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Photo luminescent paint in stairwells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«FOLA1»

Screen [Template 3] -> EVCM7

=> +1

if NOT STAIR<4

Did any of the following make your evacuation more difficult while you were in the building?				
	Yes	No	DK	RF
Crowded stairwells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Firefighters or Police moving up stairwell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disabled or injured people being taken down stairwell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locked doors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confusing or missing signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of clear instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«EVC1»

Screen [Template 3] -> EXP11

Please tell me if you noticed any of the following at any time during your evacuation. FOLLOW UP: Was that in your immediate area or outside the Tower?			
	Did Not Notice	Noticed in Immediate Area	Noticed Outside the Tower
Smoke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire or Flames	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fireballs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collapsed walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jet Fuel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severely or fatally injured people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sprinklers going on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A fire alarm sounding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power outage or flickering lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fallen ceiling tiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«EXP01_01»

«EXP01_02»

TIME PERIOD: 3

During your evacuation, did you turn back at any time? “TURN BACK” MEANS “GO BACK UP”.

YES	1	
NO	2	=> EXITS
DK	8	=> EXITS
RF	9	=> EXITS

«TURNB»

TIME PERIOD: 3

Why did you turn back? PROBE: Any other reason?
\$E 1 7

I GOT LOST	01	
I WAS TOLD TO TURN BACK	02	
TO HELP SOMEONE	03	
TO GET SOMETHING	04	
IT WAS TOO CROWDED	05	
SMOKE IN THE STAIRWELL	06	
MY PATH WAS OBSTRUCTED	07	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«WHYTB_01»
«WHYTB_02»
«WHYTB_03»
«WHYTB_04»
«WHYTB_05»
«WHYTB_06»
«WHYTB_07»
«WHYTB_08»
«O_WHYTB»

TIME PERIOD: 3

Did you exit the stairwell or elevator to the mezzanine or to the concourse?

MEZZANINE	1	
CONCOURSE	2	
OTHER, SPECIFY	7	O
DK	8	
RF	9	

«EXITS»
«O_EXITS»

TIME PERIOD: 3

How much time passed between the moment you first began your evacuation to when you exited the Tower? PLEASE CLARIFY WITH RESPONDENT IF TIME APPEARS TOO LONG. RESPONDENT WAS IN<WHTW2> RANGE FOR WTC 1: 1 - 103 MINUTES RANGE FOR WTC 2: 1 - 75 MINUTES
\$E 1 103

DK	998
RF	999
«TIMP2»	

SKIP FOR TOWERS

=> +2
 Else => +1
 if WHTW2=2

«SKIP2»

TIME PERIOD: 3

Did you exit the tower...

ELIMINATE ->	2	
ACCORDING TO NOT SEL1-SEL	2	
BEFORE THE PLANE HIT WTC	2	=> GETOU
AFTER THE PLANE HIT WTC 2 BUT BEFORE THE		
WTC 2 COLLAPSE, OR	2	=> GETOU
AFTER THE WTC 2 COLLAPSE	3	=> GETOU
DK	8	=> GETOU
RF	9	=> GETOU

«EXIT1»

TIME PERIOD: 3

Did you exit the tower...

Eliminate ->	1
According to NOT SEL	3
Before the plane hit WTC 2, or	1
After the plane hit WTC 2	2
DK	8
RF	9

«EXIT2»

Please remember that this study is intended as a fact finding mission and not a fault finding mission. It is crucial that we determine why some people were successful in their evacuation while others were not.

Was there anyone on your floor that was not successful in their evacuation?

YES	1	
NO	2	=> PHYSI
DK	8	=> PHYSI
RF	9	=> PHYSI

«GETOU»

Why didn't they make it out? PROBE: Any other reason?

\$E 1 8

WAS INJURED	01
WAS DISABLED	02
REFUSED TO LEAVE	03
DID NOT THINK IT WAS SERIOUS	04

STAYED BACK TO HELP SOMEONE	05	
WAS TOLD TO STAY	06	
STRUCTURAL DAMAGE	07	
SMOKE OR FIRE	08	
OTHER, SPECIFY	97	O
DK	98	X
RF	99	X

«WHYNG_01»
«WHYNG_02»
«WHYNG_03»
«WHYNG_04»
«WHYNG_05»
«WHYNG_06»
«WHYNG_07»
«WHYNG_08»
«WHYNG_09»
«O_WHYNG»

On September 11, 2001, did you have any physical problems that made it more difficult for you to leave the tower? Please do not include injuries caused by the incident or evacuation.

YES	1	
NO	2	=> AGE
DK	8	=> AGE
RF	9	=> AGE

«PHYSI»

What type of physical problem? PROBE: Anything else?
\$E 1 9

BLIND/PARTIALLY BLIND	01	
DEAF	02	
IN WHEELCHAIR	03	
NEED WALKING ASSISTANCE	04	
OBESITY	05	
HEART CONDITION	06	
PREGNANT	07	
ASTHMA	08	
ELDERLY	09	
OTHER, SPECIFY	97	O
DK	98	X
RF	99X	

«LIMIT_01»
«LIMIT_02»
«LIMIT_03»
«LIMIT_04»
«LIMIT_05»
«LIMIT_06»

«LIMIT_07»
 «LIMIT_08»
 «LIMIT_09»
 «LIMIT_10»
 «O_LIMIT»

What is your age? RANGE: 1 - 98 YEARS
 \$E 1 99

RF 99

«AGE»

READ ONLY IF YOU CAN'T TELL. What is your gender?

MALE 1
 FEMALE 2
 RF 9

«GEND»

What language do you speak best?

ENGLISH 1
 SPANISH 2
 OTHER, SPECIFY 7 O
 DK 8
 RF 9

«PLANG»

«O_PLANG»

Were you working in WTC 1 or WTC 2 during the 1993 bombing?
 => SAY11
 if YRWRK>1993

YES 1
 NO 2 => CONCR
 DK 8 => CONCR
 RF 9 => CONCR

«WBOMB»

During the 1993 bombing, did you evacuate immediately or wait to evacuate?

EVACUATE IMMEDIATELY 1
 WAIT TO EVACUATE 2
 DK 8 => +2
 RF 9 => +2

«EVBOM»

At the time of the 1993 bombing, did you feel you that your decision to<EVBOM>was the right decision?

YES	1
NO	2
DK	8
RF	9

«DEC93»

After the 1993 bombing how concerned were you that terrorists would attack the World Trade Center?
Were you...

EXTREMELY CONCERNED	1
VERY CONCERNED	2
MODERATELY CONCERNED	3
SLIGHTLY CONCERNED	4
NOT AT ALL CONCERNED	5
DK	8
RF	9

«CONCR»

Is there anything else you would like to say about your experience on September 11?

YES, RECORD RESPONSE	1	O
NO	2	
DK	8	
RF	9	

«SAY11»

«O_SAY11»

IMPACT FLOOR FLAG

=> *

if IF(((WHTW2=1 AND WHFL2>91 AND WHFL2<99) OR (WHTW2=2 AND WHFL2>77 AND WHFL2<111)),1,0)

IMPACT FLOOR FLAG	1
-------------------	---

«FFLAG»

163: LFLAG

Single

min = 1 max = 1 1 = 1

2003/09/18 15:21

LOCATION FLAG

=> *

if IF((WHFL2>990 AND WHFL2<994),1,0)

LOCATION FLAG	1
---------------	---

«LFLAG»

EVENT FLAG

=> *

if IF(((AND[NOT02-NOT06]=2-3) OR (AND[SEE02-SEE06]=2-3) OR (AND[EXP02-EXP06]=2-3)),1,0)

EVENT FLAG 1

«EFLAG»

DISABILITY FLAG

=> *

if IF((PHYSI=1),1,0)

DISABILITY FLAG 1

«DFLAG»

ROLE FLAG

=> *

if IF((ROLES=1-4),1,0)

ROLE FLAG 1

«RFLAG»

We may be interested in learning more about your experience on September 11. Would it be okay if we follow up with you sometime in the future to get more detailed information on your evacuation experience?

=> +1

if FFLAG+LFLAG+EFLAG+DFLAG+RFLAG==0

YES 1

NO 2

«FOLUP»

PRESS ENTER TO CONTINUE

Those are all the questions we have. The valuable information you provided will help designers and engineers improve building safety, and help emergency planners improve building evacuation procedures. Thank you so much for taking the time to talk with me, and have a good day/evening. Good-bye.

END OF SURVEY 1 D => /INT99

«THANK»

This page intentionally left blank.